

What is claimed is:

1. An ink-jet recording sheet, comprising a support having thereon a porous ink receiving layer, the porous ink receiving layer including inorganic particles, a hydrophilic binder and a polymer,

wherein the polymer has a plurality of carbon-carbon unsaturated bonds, provided that the unsaturated bonds are non-aromatic; the polymer has a recurring unit derived from butadiene or isoprene; and the polymer has 30 to 10000 carbon atoms in the molecule.

2. The ink-jet recording sheet of claim 1, wherein the polymer has 70 to 1000 carbon atoms in the molecule.

3. The ink-jet recording sheet of claim 1, wherein the polymer is polybutadiene or polyisoprene.

4. The ink-jet recording sheet of claim 1, wherein the porous ink receiving layer contains 1, 2-polybutadiene in an amount of not less than 60 weight% based on the total weight of the polymer.

5. The ink-jet recording sheet of claim 1, wherein the porous ink receiving layer further contains a anti-discoloration agent.

6. The ink-jet recording sheet of claim 5, wherein the anti-discoloration agent is selected from the group consisting of:

- (i) phenol compounds;
- (ii) sulfur containing compounds;
- (iii) amine compounds;
- (iv) multivalent metal salts;
- (v) phosphor containing compounds;
- (vi) alcohols; and
- (vii) benzotriazoles or benzophenones.

7. The ink-jet recording sheet of claim 1, wherein the porous ink receiving layer further contains a fluorescent whitening agent.

8. The ink-jet recording sheet of claim 1, wherein the porous ink receiving layer further contains a surface active agent.

9. The ink-jet recording sheet of claim 1, wherein the inorganic particles are silica, alumina or alumina hydrate.

10. The ink-jet recording sheet of claim 1, wherein the inorganic particles have an average particle diameter of not more than 200 nm.

11. The ink-jet recording sheet of claim 1, wherein the porous ink receiving layer further contains a cationic polymer.

12. The ink-jet recording sheet of claim 1, wherein the porous ink receiving layer further contains an antimicrobial agent.

13. The ink-jet recording sheet of claim 1, wherein the porous ink receiving layer further contains a polyvinyl alcohol having an average polymerization degree of not less than 3000.